

Office of Naval Research International Field Office

Trip Report No. IV

Visit to S & T Facilities in Hong Kong, SAR

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These reports summarize global activities of S&T Associate Directors of the Office of Naval Research International Field Offices (ONRIFO). The complete listing of newsletters and reports are available under the authors' by-line on the ONRIFO homepage: <http://www.ehis.navy.mil/http://www.ehis.navy.mil/onrnews.htm> or ONRIFO-Asia homepage: <http://www.onr.navy.mil/onrasia/>, or by email to respective authors.

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Key Words: *Hong Kong SAR, S & T, Hong Kong University of Science and Technology (HKUST), Center for Coastal and Atmospheric Research (CCAR), Pearl River Estuary, South China Sea, Potential Cooperation/Collaboration Partners, USGS, Lamont-Doherty Earth Observatory*

1. Summary

During the period August 16 – 17, visits were made to the Hong Kong Polytechnic University, the Hong Kong University for Science and Technology, its Center for Coastal and Atmospheric Research (CCAR) and the AST Satellite Control Center. These meetings were arranged by U.S. Embassy staff for Dr. Craig Dorman's country visit. His primary goal was to assess the present status of S & T in Hong Kong, the future direction and funding priorities of S & T efforts and to learn the strengths/weaknesses of the major university and private sector participants in S & T.

Hong Kong's future as a leader in S & T is not rosy. Funding is being cut back and there is neither the educational imperative nor the direction for many of its students to become part of the S & T field. Hong Kong will continue to import its upper level scientists, engineers and technicians as it strives to become the "knowledge community" of the far east.

The only group visited that is involved with OAS's scope of interest in Hong Kong is Hong Kong University for Science and Technology's Center for Coastal and Atmospheric Research.

Details are presented below.

2. Background

Dr. Dorman's Hong Kong report provides his synopsis of the important political, economic, scientific and technological issues facing Hong Kong. The purpose of his visit was to identify potential university or industrial activities that could be engaged to participate in activities sponsored by ONR's project officers. Another option was to facilitate cooperative/collaborative efforts between scientists that have mutual research interests.

On Thursday August 16 accompanied Dr. Craig Dorman and LCDR Jack Shea to:

1. Consulate Team Brief;
2. Hong Kong Polytechnic University; and
3. Working dinner with Dr. Kenneth Young, Chairman, Research Grants Council and Mr. Li, Deputy Secretary.

On Friday August 17 accompanied Dr. Craig Dorman and LCDR Jack Shea to:

1. Hong Kong's University of Science and Technology (HKUST);
2. HKUST's Center for Coastal and Atmospheric Research (CCAR); and
3. AST Satellite Control Center

Dr. Dorman's report will cover each visit in detail.

3. Highlights of Discussion

HKUST's Center for Coastal and Atmospheric Research (CCAR)

The Center for Coastal and Atmospheric Research is of particular interest to ONRIFO's OAS effort. This group has been or is currently involved in several individual atmospheric and coastal studies related to specific problems facing Hong Kong. For example: wind shear at the New Hong Kong airport; determination of safe operating conditions for the airport train; development of the air pollution index (API); micro-scale atmospheric research; Harmful Algal Blooms (HAB); water quality; and ecology related projects.

4. CCAR Assessment

Their ongoing cooperative research on the Pearl River Estuary is significant. An established network of atmospheric and coastal monitoring stations exists, as well as regularly scheduled sampling cruises on mainland Chinese research vessels. The plan calls for extension of the study seaward into the South China Sea. Their study area and

accumulated data should be of interest to the US Navy as this area lies on the southern flank of China.

CCAR has established collaborations with SIO and the University of Maine.

CCAR is using various established atmospheric and oceanographic models. CCAR has both experience in their use as well as important and useful data.

CCAR has good instrumentation, technicians and laboratories, but must rely upon mainland China's research vessels for data collection.

Working with CCAR would provide access to: data from an important operating area; input/output of various atmospheric and oceanographic models; and an avenue of access to mainland China's atmospheric and coastal oceanography scientists.

Existing collaborations and CCAR's stated desire to work with foreign scientists on projects of mutual interest suggests that ONRIFO ASIA could act as a catalyst to spur interaction with this sophisticated group of researchers and through them to mainland scientists.

I will put representatives of LDEO and CCAR in contact to determine if cooperation/collaboration is a possibility.

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